CLAIMS

What is claimed is:

1. A method of preventing a malfunction of a disc drive, comprising:

a first monitoring operation determining whether an operative state of the disc drive is stable when a disc is loaded into the disc drive;

determining if the operative state of the disc drive is stable; and

controlling a turning on of a correction function for a minimum pit length, if the operative state of the disc drive is determined to be stable.

2. The method of claim 1, further comprising:

a second monitoring operation determining whether the operative state of the disc drive is stable after turning the correction function for the minimum pit length on;

determining if the operative state of the disc drive is unstable; and

controlling a turning off of the correction function, if the operative state of the disc drive is determined to be unstable from a second monitoring result.

3. The method of claim 1, wherein the first monitoring and the second monitoring operations monitor overall functions of the disc drive.

4. The method of claim 1, wherein the minimum pit length is 3T.

5. The method of preventing a malfunction of a disc drive according to claim 1, wherein the first monitoring operation comprises:

monitoring a synchronization signal supplied from a digital signal processing unit,
monitoring an operation of a servo unit, and
monitoring a signal supplied from a host computer.

6. The method of preventing a malfunction of a disc drive according to claim 2, wherein the second monitoring operation comprises:

monitoring a synchronization signal supplied from a digital signal processing unit,
monitoring an operation of a servo unit, and
monitoring a signal supplied from a host computer.

7. The method of preventing a malfunction of a disc drive according to claim 2, wherein the determining if the disc drive is unstable comprises:

determining if a period of a synchronization signal supplied from a digital signal processing unit is not regular,

determining if after a servo unit is requested to turn on a focus lock operation or a constant linear velocity lock operation, a level of a response signal corresponding to the turn on operation of the focus lock or the CLV lock generated in the servo unit does not meet a specified standard, and

determining if the level or the phase of the RF signal reproduced when the host computer requests the disc drive to perform "STOP" operation during a normal reproduction operation is generated abnormally.

8. A malfunction preventing apparatus of a disc drive, comprising:

a digital signal processing unit correcting a signal for a minimum pit length using a radio frequency (RF) signal generated according to an operative state of the disc drive; and

a system control unit monitoring the operative state of the disc drive, and if the operative state of the disc drive is stable controlling a turning on of the correcting.

9. The malfunction preventing apparatus of claim 8, wherein the system control unit continuously monitors the operative state of the disc drive after the correcting, determining if the operative state of the disc drive is unstable, and controlling a turning off of the correcting, if the operative state of the disc drive is determined to be unstable.

10. The malfunction preventing apparatus of claim 8, wherein the system control unit monitors overall functions of the disc drive for the determining if the operative state of the disc drive is unstable.

11. The malfunction preventing apparatus of claim 8, wherein the minimum pit length is 3T.

12. The malfunction preventing apparatus of a disc drive according to claim 8, wherein the monitoring of the operative state of the disc drive comprises:

monitoring a synchronization signal supplied from a digital signal processing unit,

monitoring an operation of a servo unit, and monitoring a signal supplied from a host computer.

13. The malfunction preventing apparatus of a disc drive according to claim 9, wherein the monitoring of the operative state of the disc drive comprises:

monitoring a synchronization signal supplied from a digital signal processing unit,
monitoring an operation of a servo unit, and
monitoring a signal supplied from a host computer.

14. The malfunction preventing apparatus of a disc drive according to claim 9, wherein the determining if the operative state of the disc drive is unstable comprises:

determining if a period of a synchronization signal supplied from a digital signal processing unit is not regular,

determining if after a servo unit is requested to turn on a focus lock operation or a constant linear velocity lock operation, a level of a response signal corresponding to the turn on operation of the focus lock or the CLV lock generated in the servo unit does not meet a specified standard, and

determining if the level or the phase of the RF signal reproduced when the host computer requests the disc drive to perform "STOP" operation during a normal reproduction operation is generated abnormally.

15. A method of preventing a malfunction of a disc drive, comprising:

monitoring an operative state of a disc drive;

determining a stability of the operative state of the disc drive; and

controlling a turning on and a turning off of a correcting of a minimum pit length based on the determined stability.

16. The method of preventing a malfunction of a disc drive, according to claim 15 wherein the monitoring an operative state of the disc drive comprises:

monitoring a synchronization signal supplied from a digital signal processing unit,
monitoring an operation of a servo unit, and
monitoring a signal supplied from a host computer.

17. The method of preventing a malfunction of a disc drive, according to claim 15, wherein the determining the stability of the disc drive unstable comprises:

determining if a period of a synchronization signal supplied from a digital signal processing unit is regular,

determining if after a servo unit is requested to turn on a focus lock operation or a constant linear velocity lock operation, a level of a response signal corresponding to the turn on operation of the focus lock or the CLV lock generated in the servo unit meets a specified standard, and

determining if the level or the phase of the RF signal reproduced when the host computer requests the disc drive to perform "STOP" operation during a normal reproduction operation is generated abnormally.

18. The method of preventing a malfunction of a disc drive according to claim 15, wherein the monitoring is continuous.

19. A malfunction preventing apparatus of a disc drive, comprising:

a digital signal processing unit correcting a signal for a minimum pit length using a radio frequency (RF) signal generated according to an operative state of the disc drive; and

a system control unit monitoring the operative state of the disc drive, and controlling the correcting of the minimum pit length based on the operative state of the disc drive.

20. The malfunction preventing apparatus of a disc drive according to claim 19, wherein the monitoring of the operative state of the disc drive includes monitoring a synchronization signal supplied from a digital signal processing unit, monitoring an operation of a servo unit, and monitoring a signal supplied from a host computer.

21. The malfunction preventing apparatus of a disc drive according to claim 19, wherein the operative state of the disc drive comprises:

a regularity of a period of a synchronization signal supplied from a digital signal processing unit,

a meeting of a specified standard of a level of a response signal corresponding to the turn on operation of the focus lock or the CLV lock generated in a servo unit after the servo unit is requested to turn on a focus lock operation or a constant linear velocity lock operation does not meet a specified standard, and normality of generation of the level or the phase of the RF signal reproduced when the host computer requests the disc drive to perform "STOP" operation during a normal reproduction operation.

22. The malfunction preventing apparatus of a disc drive according to claim 19, wherein the monitoring of the operative state is continuous.

23. A computer-readable medium encoded with processing instructions implementing a method for preventing a malfunction of a disc drive, the method comprising:

a first monitoring operation determining whether an operative state of the disc drive is stable when a disc is loaded into the disc drive;

determining if the operative state of the disc drive is stable; and

controlling a turning on of a correction function for a minimum pit length, if the operative state of the disc drive is determined to be stable.

24. The computer-readable medium of claim method according to claim 23, the method further comprising:

a second monitoring operation determining whether the operative state of the disc drive is stable after turning the correction function for the minimum pit length on;

determining if the operative state of the disc drive is unstable; and

controlling a turning off of the correction function, if the operative state of the disc drive is determined to be unstable from a second monitoring result.